

REMARKS

The Office Action mailed November 29, 2005, has been received and reviewed.

Claims 1-22 are currently pending in the above-referenced application. Of these, claims 17-22 have been withdrawn from consideration pursuant to an election made responsive to a restriction requirement. Claims 1-16, which have been considered, stand rejected.

Claims 17-22 have been canceled without prejudice or disclaimer.

New claims 23-28 have been added.

Reconsideration of the above-referenced application is respectfully requested.

Preliminary Amendment

Please note that a Preliminary Amendment was filed in the above-referenced application on May 3, 2004, but that the undersigned attorney has not yet received any acknowledgement that the Preliminary Amendment has been entered into the Office file for the above-referenced application. If, for some reason, the Preliminary Amendment has not yet been entered into the Office file, the undersigned attorney would be happy to provide the Office with a true copy thereof.

Rejections under 35 U.S.C. § 103(a)

Each of claims 1-16 has been rejected under 35 U.S.C. § 103(a).

The standard for establishing and maintaining a rejection under 35 U.S.C. § 103(a) is set forth in M.P.E.P. § 706.02(j), which provides:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Grigg in View of Tischler

Claims 1-5, 7, 8, and 10-16 stand rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over the subject matter taught in U.S. Patent 6,337,122 to Grigg et al. (hereinafter “Grigg”), in view of teachings from U.S. Patent Application Publication 2003/0114016 of Tischler (hereinafter “Tischler”).

Independent claim 1 recites a programmed material consolidation system that includes a plurality of fabrication sites, as well as at least one common component useful with more than one of the plurality of fabrication sites.

The teachings of Grigg are limited to a programmed material consolidation system that includes a single fabrication site, not a plurality of fabrication sites. Thus, the components of that system are useful with only one fabrication site. The programmed material consolidation system disclosed in Grigg is a stereolithography apparatus that includes a platen, upon which an object is to be formed, that may be incrementally lowered into a reservoir that contains liquid photopolymer and that is configured to maintain a surface of the liquid photopolymer at a constant, or fixed, level. Col. 9, line 44, to col. 10, line 40.

Tischler teaches a substrate carrier that may be used in conjunction with process tools such as an “epitaxial thin film deposition reactor.” Paragraph [0007]. Examples of epitaxial thin film deposition reactors include sputtering chambers and other physical vapor deposition (PVD) reactors, chemical vapor deposition (CVD) reactors, and atomic layer deposition (ALD) reactors. As epitaxial thin film deposition chambers deposit material indiscriminately, rather than in accordance with a program, epitaxial thin film deposition chambers are not programmable material consolidation apparatus. The carriers of Tischler act as adapters that allow epitaxial thin film deposition reactors to hold substrates with shapes or dimensions that differ from the substrate shapes or dimensions that the reactors were designed to contain.

Paragraph [0008].

It is respectfully submitted that Grigg and Tischler do not provide teachings that support a *prima facie* case of obviousness against any of claims 1-5, 7, 8, or 10-16.

In particular, it is respectfully submitted that, without the benefit of hindsight that has been made available to the Office by the claims and disclosure of the above-referenced

application, one of ordinary skill in the art wouldn't have been motivated to immerse the wafer carrier of Tischler within the liquid-filled chamber of a programmed material consolidation apparatus of the type disclosed in Grigg. Specifically, Tischler does not provide any motivation to use the support thereof anywhere other than in a reactor for depositing epitaxial thin films. Moreover, the platform 90 of Grigg includes a planar surface that may receive a substrate of any size, provided the dimensions of the substrate are less than the corresponding dimensions of the reservoir within which the platform 90 is located. Thus, neither Grigg nor Tischler provides one of ordinary skill in the art with any reason to expect the platform 90 of Grigg to be deficient in its ability to hold substrates of various sizes.

Moreover, assuming, *arguendo*, that the carrier of Tischler were used on platform 90 of the apparatus disclosed in Grigg, a technique for securing the carrier, such as the substrate securing process described at col. 8, line 55, to col. 9, line 2, would also have to be devised. As Grigg clearly teaches that one or more substrates could be directly secured to platen 90, the use of the carrier of Tischler with the apparatus disclosed in Grigg would only unnecessarily complicate the process of securing one or more substrates to platen 90.

For these reasons, neither Grigg nor Tischler would have provided one of ordinary skill in the art with any motivation to combine their teachings before the earliest date to which a claim for priority has been made in the above-referenced application. Therefore, the teachings of Grigg and Tischler do not support a *prima facie* case of obviousness against any of claims 1-5, 7, 8, or 10-16.

As such, under 35 U.S.C. § 103(a), the subject matter recited in claims 1-5, 7, 8, and 10-16 is allowable over the subject matter taught in Tischler and Huang.

Grigg, Tischler, and Yamamoto

Claims 6 and 9 stand rejected under 35 U.S.C. § 103(a) for being drawn to subject matter that is allegedly unpatentable over teachings from Grigg, in view of the subject matter taught in Tischler and, further, in view of teachings from U.S. Patent 5,151,813 to Yamamoto et al. (hereinafter “Yamamoto”).

Claims 6 and 9 are both allowable, among other reasons, for depending indirectly from claim 1, which is allowable.

Claims 6 and 9 are additionally allowable since Yamamoto includes no teaching or suggestion that remedies the above-mentioned deficiency in motivation for one of ordinary skill in the art to have combined the teachings of Grigg and Tischler in the asserted manner.

Claim 9 is additionally allowable since none of Grigg, Tischler, or Yamamoto teaches or suggests a rotary feed system for handling substrates, let alone a programmed material consolidation system that includes a rotary feed system associated with more than one fabrication site.

It is respectfully requested that the 35 U.S.C. § 103(a) rejections of claims 1-16 be withdrawn, and that each of these claims be allowed.

New Claims

New claims 23-28 have been added. New claim 23 is an independent claim that recites a programmed material consolidation system that includes means for selectively directing consolidating energy toward at least two distinct fabrication sites. New claims 24-28 depend directly or indirectly from new independent claim 23.

None of new claims 23-28 introduces new matter into the above-referenced application.

It is respectfully submitted that the subject matter recited in each of new claims 23-28 is allowable over the art of record in the above-referenced application.

CONCLUSION

It is respectfully submitted that each of claims 1-16 and 23-28 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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